Operations Guide

Welcome. Please, Read This:

We at Crate extend our sincere "welcome" into a whole new world: a world where the legendary performance of a musician-made Crate amplifier combines with the wonders of digital amp modeling and effects. We bring you the only amplifier you'll ever need: the Crate DX-112 / DX-212. The heart and soul of sixteen different amplifiers have been captured through the miracles of digital software engineering and placed into the DX amplifier. Not only does the amp *sound* like the originals, it *performs* like the originals, with the same tones and character of all your favorites – from vintage British grit to today's heavy metal – with a wide variety in between.

Along with digital amp modeling comes sixteen digital effects, all designed to rock your world from here to Sunday. And, you can tweak each effect to your heart's content!

Got your own favorite effects? Not to worry – the DX amps have stereo line in and line out jacks for use as a stereo effects loop, or for connecting to an external stereo power amp. It's like having your cake and eating it, too – with extra icing!

The DX amplifier is programmable and can be controlled in a number of ways, including through the front panel keypad, with the optional Crate Foot Controller, or via MIDI.

Within the pages of this Operating Guide you will find all sorts of pertinent, useful and sometimes technical information which we at Crate felt you ought to have. Please indulge us a bit and take the time to actually read through this Guide at some point. Until then, for those of you who just can't wait to plug in and go, we offer you:

Quick Start: Plug In and Go!
(page 1)

There you'll find just enough information to get you started. If you run into any situation that isn't covered in the Quick Start section, you might have to – guitar gods forbid – read this guide first.

We at Crate thank you for choosing the DX-112/212 Digital Guitar Amplifier!

CRATE DX-112/212 Digital Guitar Amplifier

Important Safeguards and Precautions:

All Crate products are designed for continuous safe operation, as long as common sense is used and steps are taken to help avoid certain problems. Abiding by the following rules can help prevent damage to your amplifier, yourself and others.

- The amplifier is equipped with a three-pronged AC power cord. To reduce the risk of electrical shock, ***NEVER*** remove or otherwise attempt to defeat the ground pin of the power cord.
- Connect the amplifier ***ONLY*** to a properly grounded AC outlet of the proper voltage for your amp.
- Avoid sudden temperature extremes, rain and moisture. Also, avoid sudden and intense impact. (If the unit has been subjected to any of the preceding abuses, have it looked at by an authorized service center.)
- ***NEVER*** set the amplifier on a support that might give out under its weight.
- Always keep the total speaker impedance at or above the rated load.
- Unplug the amplifier before cleaning it. ***NEVER*** spray liquid cleaners onto the amplifier. Wipe it with a slightly dampened, lint-free cloth to remove dirt and film.
- Do not use the amplifier if it has sustained damage to the chassis, controls, or power cord. Refer the unit to an authorized service center for inspection.
- Amplifiers capable of producing high volume levels are also capable of inflicting permanent hearing loss or damage, if the exposure to such levels is prolonged. Such damage is progressive and irreversible! Consider using quality hearing protection devices.

Declaration Of Conformity

#37, Effective 01-01-2001

Manufacturer's Name:	SLM Electronics
Production Facility:	11880 Borman Drive, St. Louis, MO 63146, USA
Production Facility:	700 Hwy 202 W, Yellville, AR 72687, USA
Shipping Facility:	1400 Ferguson Ave., St. Louis, MO 63133, USA
Office Facility:	1400 Ferguson Ave., St. Louis, MO 63133, USA
Product Type:	Audio Amplifier
Complies with Standards:	
LVD:	92/31/EEC, 93/68/EEC, & 73/23/EWG
Safety:	EN60065
EMC:	EN55013, EN55020, EN55022, EN61000-3-2, & EN61000-3-3

Supplementary information provided by your local Sales & Services Office or:
SLM Electronics - R & D Engineering
1901 Congressional Drive, St Louis, MO 63146, USA
Tel.: 314-569-0141, Fax: 314-569-0175

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

PRECAUCION
RIESGO DE CORRIENTAZO
NO ABRA

PRECAUCION: PARA REDUCIR EL RIESGO DE INCENDIOS O DESCARGAS ELECTRICAS, NO PERMITA QUE ESTE APARATO QUEDE EXPUESTO A LA LLUVIA O LA HUMEDAD. PARA DISMINUOIR EL RIESGO DE CORRIENTAZO. NO ABRA LA CUBIERTA. NO HAY PIEZAS ADENTRO QUE EL USARIO PUEDO REPARAR DEJE TODO MANTENIMIENTO A LOS TECHNICOS CALIFICADOS.

ATTENTION
RISQUE D'ELECTROCUTION
NE PAS OUVRIR

ATTENTION: PROTÉGEZ CET APPAREIL DE LA PLUIE ET DE L'HUMIDITÉ AFIN D'ÉVITER TOUT RISQUE D'INCENDIE OU D'ÉLECTROCUTION. POUR REDUIRE D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPRABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.

IMPORTANT SAFETY INSTRUCTIONS

- READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.
- DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS APPARATUS. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75CM) OF WELL VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.
- DO NOT USE THIS APPARATUS NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.
- CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.
- ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE APPARATUS.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.
- UNPLUG THE APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.
- THIS APPARATUS DOES NOT OPERATE NORMALLY AND REQUIRES SERVICE WITH ANY PHYSICAL DAMAGE FROM IMPACT OR ANY EXPOSURE TO MOISTURE.
- SERVICE MUST BE PERFORMED BY QUALIFIED PERSONNEL.
- OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.

EXPLANATION OF GRAPHICAL SYMBOLS:
EXPLICACION DE SIMBOLOS GRAFICOS:
EXPLICATION DES SYMBÔLES GRAPHIQUES:

= "DANGEROUS VOLTAGE" "VOLTAJE PELIGROSO" "DANGER HAUTE TENSION"

= "IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL" "ES NECESARIO QUE EL USUARIO SE REFIERA AL MANUAL DE INSTRUCCIONES." "REFERREZ-VOUS AU MANUAL D'UTILISATION"

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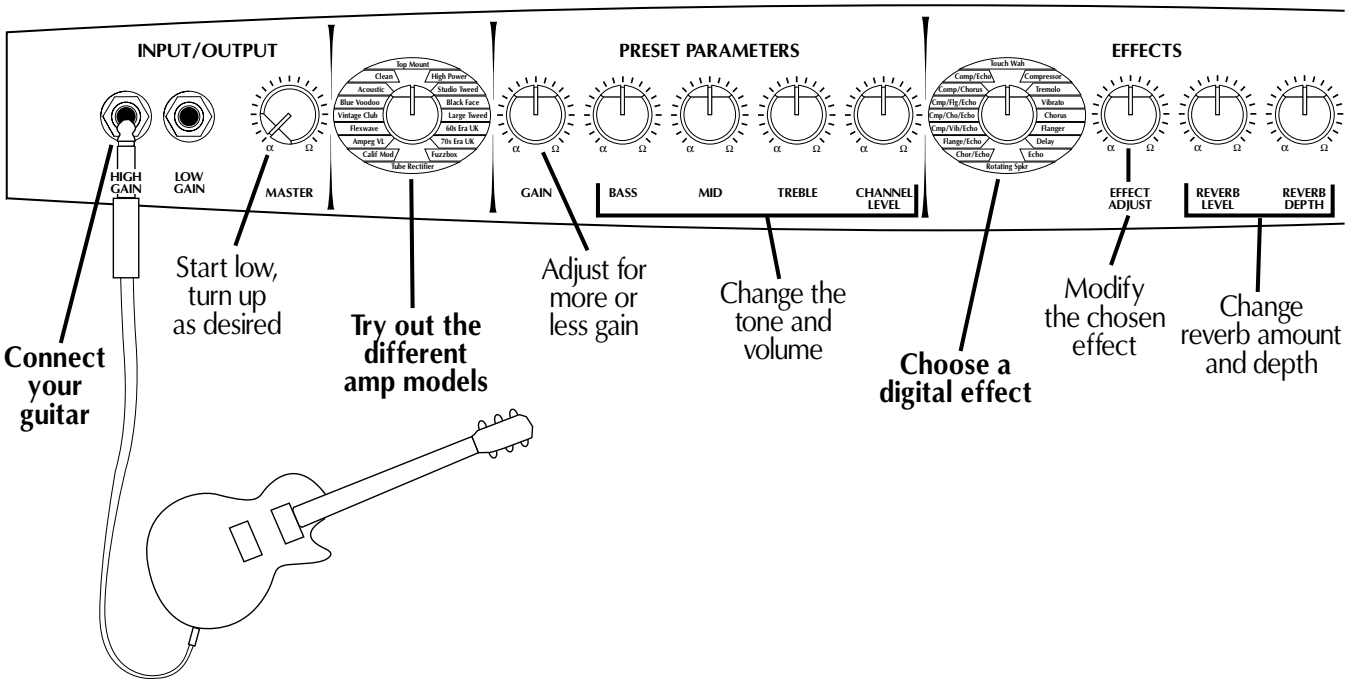
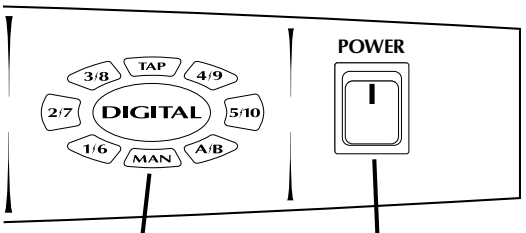
CRATE DX-112/212 Digital Guitar Amplifier

QUICK START

Quick Start: Plug In and Go!

Making Sound:





Try out the factory presets (bank A,1 – 5; bank B, 6 – 10)

(If you need to ask, ...)

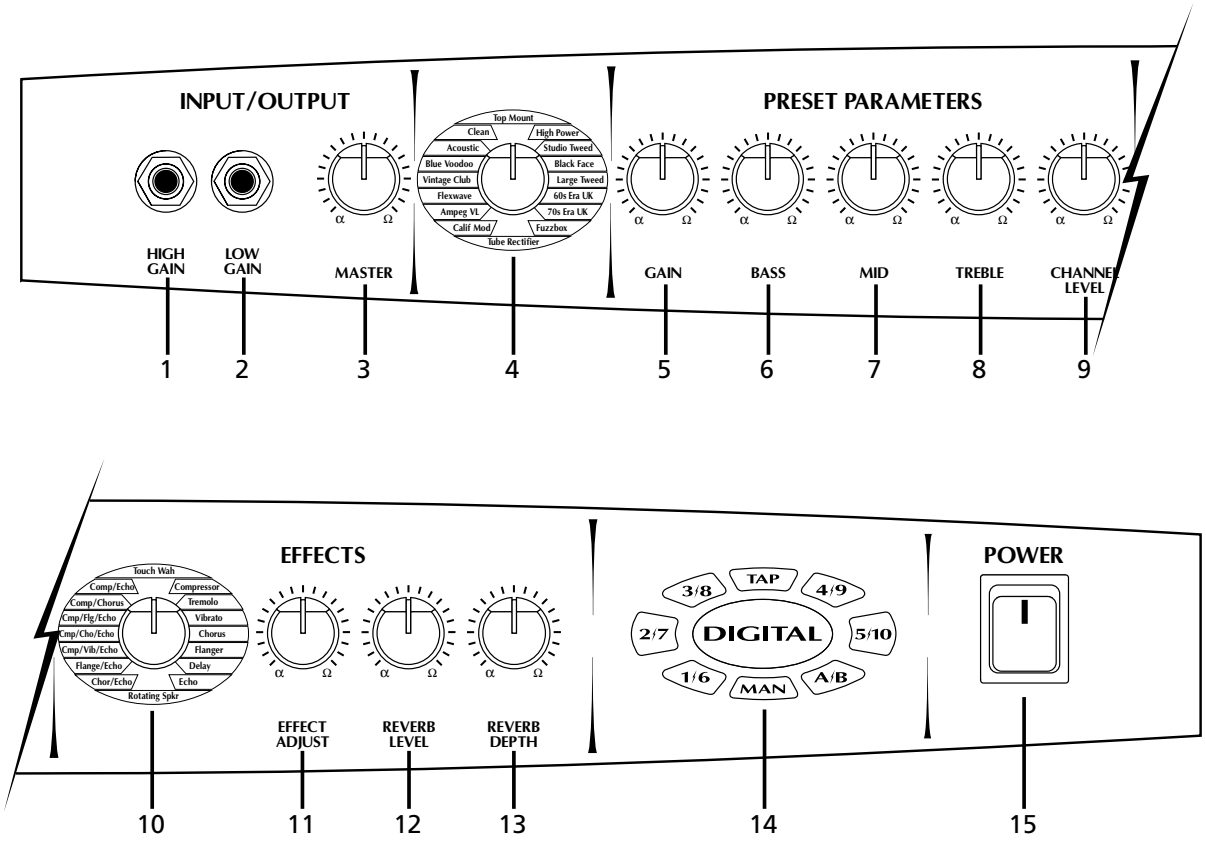
Making Sound:

- You may want to start out with the Master control turned down low, since this amp can get LOUD.
- Connect your guitar, plug in the amp and turn it on.
- Select the manual mode by pressing the MAN button on the keypad.
- Adjust the Gain control to get the amount of gain you want.
- Try out the amp models by turning the Amp Selector knob.
- Use the Bass, Mid, Treble and Channel Level controls to change the tone and volume. The EQ settings will vary depending on the amp model you choose.
- Choose a digital effect by turning the Effects Selector knob.
- Modify the chosen effect by turning the Effect Adjust control.
- Adjust the reverb by turning the Reverb Level and Depth controls.
- Try out the factory presets by pressing the numbered buttons and the A/B button on the Keypad.

  •When first turned on, the A/B button is not lit, and the numbered buttons recall presets 1-5 (bank A). When you press the A/B button it lights up, and the numbered buttons recall presets 6-10 (bank B).

Quick Start: Plug In and Go!

A Look at the Front Panel Controls:

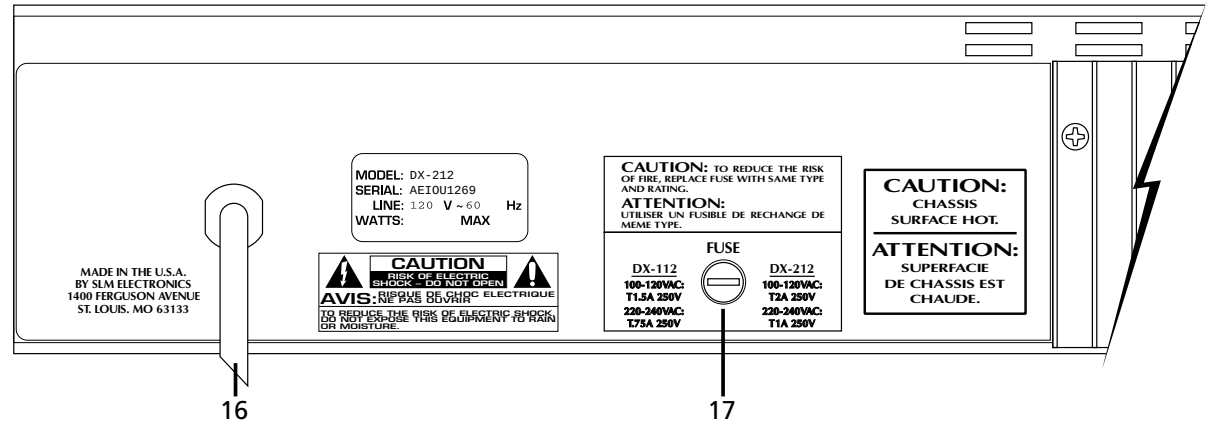


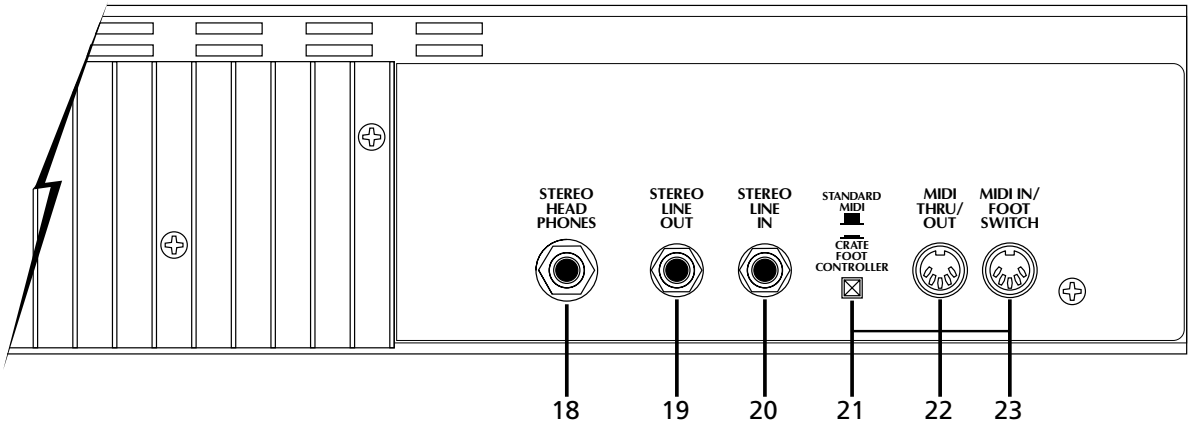
The Front Panel :	Refer to Section / Page:
1, 2. Inputs: Use High Gain for standard pickups, Low Gain for "hot" pickups and/or on-board active electronics.	"The Input Jacks" – page 7,8
3. Master: Sets the overall output level. The Master volume is the only non-programmable setting on the amplifier.	
4. Amp Selector: Chooses the desired amp model.	"Descriptions of the Models" – page 11,12
5. Gain: Adjusts the input gain.	"Equalization and Channel Level" – page 13,14
6, 7, 8. Bass, Mid, Treble: Adjusts the signal tone.	"Equalization and Channel Level" – page 13,14
9. Channel Level: Sets the output level of the current preset.	"Equalization and Channel Level" – page 13
10. Effects Selector: Chooses the effect applied to the signal.	"Descriptions of the Effects" – page 15,16
11. Effects Adjust: Changes one or more parameter of the current effect.	"Effects Selection and Adjustment" – page 17,18
12. Reverb Level: Sets the amount of reverberation applied to the signal.	"Description of the Effects" – page 15,16
13. Reverb Depth: Changes the depth and high-frequency damping of reverberation, from a very small room (fully counter-clockwise) to a very large hall (fully clockwise).	
14. Keypad: Recalls and saves presets, using the numbered buttons and the A/B button.	"The Keypad" – page 19,20
15. Power: Up is on!	

(These are the barest of the bare-bones descriptions – enough to get you started. Please check out the sections and pages noted for more information – this goes for the rear panel, too.)

Quick Start: Plug In and Go!

A Look at the Rear Panel:


MODEL: DX-212
SERIAL: AEIOU1269
LINE: 120 V ~ 60 Hz
WATTS: MAX
MADE IN THE U.S.A.
BY SLM ELECTRONICS
1400 FERGUSON AVENUE
ST. LOUIS. MO 63133
CAUTION
RISK OF ELECTRIC SHOCK - DO NOT OPEN
AVIS: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
CAUTION: TO REDUCE THE RISK OF FIRE, REPLACE FUSE WITH SAME TYPE AND RATING.
ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.
FUSE
DX-112
100-120VAC: T1.5A 250V
220-240VAC: T.75A 250V
DX-212
100-120VAC: T2A 250V
220-240VAC: T1A 250V
CAUTION: CHASSIS SURFACE HOT.
ATTENTION: SUPERFACIE DE CHASSIS EST CHAUDE.
16
17

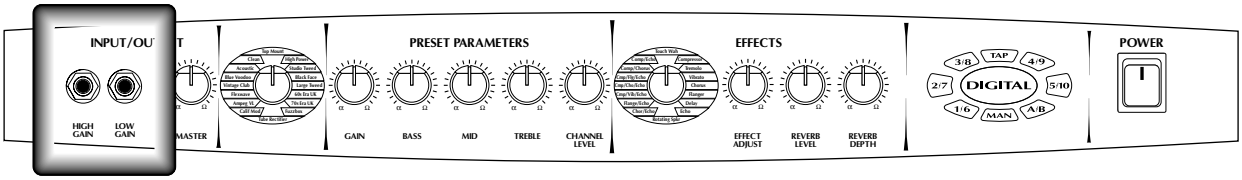


The Rear Panel :	Refer to Section / Page:
16. AC Line Cord: Plug the male end of this cord into a properly grounded AC outlet of the correct voltage. **DO NOT DEFEAT THE GROUND PIN OF THE AC PLUG!**	
17. Fuse: The fuse protects the amplifier against damages caused by overload conditions in the unit. If the fuse blows, replace it only with the same size and type as indicated on the rear panel.	
18. Stereo Headphones: For those private moments, plug a pair of stereo headphones into this jack. The internal speaker(s) is (are) muted when headphones are used. (Can also be used for recording.)	"Stereo Headphones Jack" – page 9,10
19. Stereo Line Out: Connect this output to a stereo amplifier or effects unit.	"The Stereo Line In and Line Out Jacks" – page 7,8
20. Stereo Line In: Connect the output of an external effects unit here.	"The Stereo Line In and Line Out Jacks" – page 7,8
21. Standard MIDI/Crate Footswitch Controller: This switch lets you choose how you control your DX-112/212 – via MIDI or with the optional Crate Foot Controller.	"Using the Crate Foot Controller" – page 9,10
22. MIDI Thru/Out: Connect to another MIDI device you wish to control with the foot controller.	"The MIDI Thru/Out Jack" – page 9,10
23. MIDI In/Foot Switch: This jack either accepts a standard MIDI input or lets you use the Crate Foot Controller.	"Using a MIDI Footswitch" – page 9,10

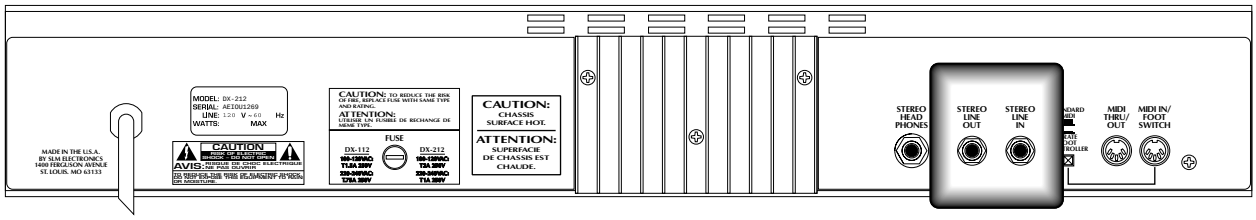
(That's all we're gonna give you for now! To learn a whole lot more, read the rest of this guide!)

Making the Right Connections

The Input Jacks:



The Stereo Line In and Line Out Jacks:


MODEL: DX-212
SERIAL: AE10U1269
LINE: 120 V ~60 Hz
WATTS: MAX
CAUTION
RISK OF ELECTRIC SHOCK
AVIS: RISQUE DE CHOC ELECTRIQUE
CAUTION: TO REDUCE THE RISK OF FIRE, REPLACE FUSE WITH SAME TYPE AND RATING.
ATTENTION: POUR EVITER LES RISQUES DE FEU, REMPLACER LE FUSIBLE PAR UN FUSIBLE DE MEME TYPE.
FUSE
DX-112
DX-212
CAUTION: CHASSIS SURFACE HOT.
ATTENTION: SUPERFACIE DE CHASSIS EST CHAUDE.
MADE IN THE U.S.A. BY SLM ELECTRONICS 1400 FERGUSON AVENUE ST. LOUIS, MO 63133
STEREO HEAD PHONES
STEREO LINE OUT
STEREO LINE IN
MIDI THRU/ OUT
MIDI IN/ FOOT SWITCH

The Input Jacks:

The DX-112/212 has two input jacks – High Gain (straight) and Low Gain (padded) – to accommodate a wide range of pickups and playing styles. The jack you use depends on your type of pickups and the sounds you're after.

For example, most players will plug their guitars into the High Gain jack. These players include those with "normal output" pickups and some players with "hot" pickups who are looking for some added distortion.

Some players will choose the Low Gain jack. These players are mostly those with "hot"/active pickups who want a cleaner sound, with more headroom for the Gain control.

When nothing is plugged into either jack, the DX-112/212 mutes its internal speaker(s).

The Stereo Line Out/In Jacks:

The DX-112/212 has a Stereo Line In and Line Out jack (rear panel), for use as a stereo effects loop, or to send a preamplified signal to an external stereo power amp.

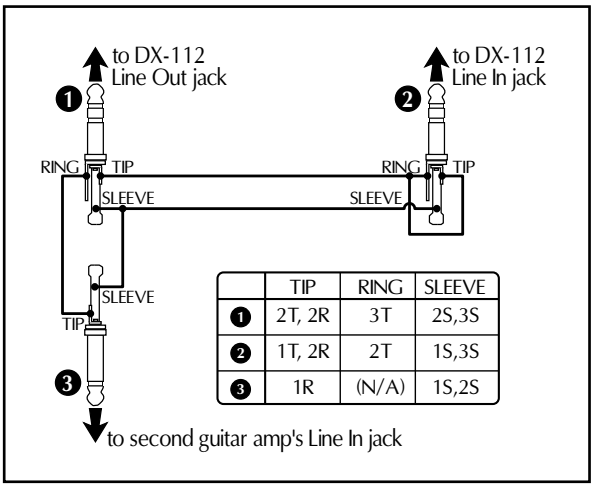
To use an effects loop, connect the Line Out jack to the input of the effects device, then connect the output of the device to the Line In jack.

To send a preamplified signal, connect a stereo signal cable from the Line Out jack to the input of the stereo power amplifier.

The jacks are wired as follows: TIP = left channel, RING = right channel, SLEEVE = ground.

The Line Out jack signal is post master, post eq, and post effects.

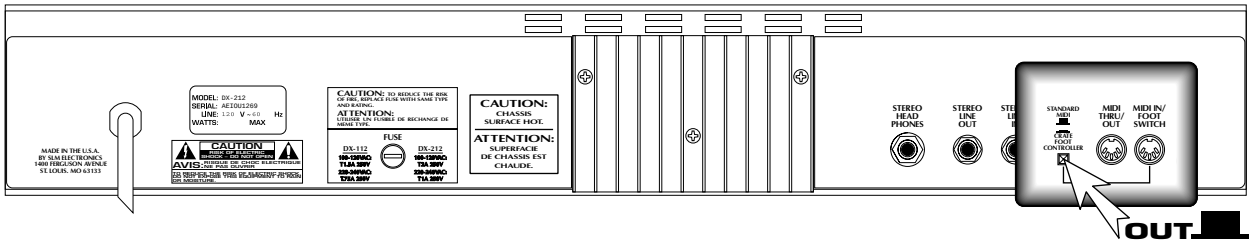
•If you want to connect a DX-112 to another guitar amplifier for stereo sound, you'll need to make a custom patch cable like the one shown to the right. Use this cable to connect your DX-112 Line Out jack to the Line In jack of the second guitar amp AND the DX-112 Line In jack.



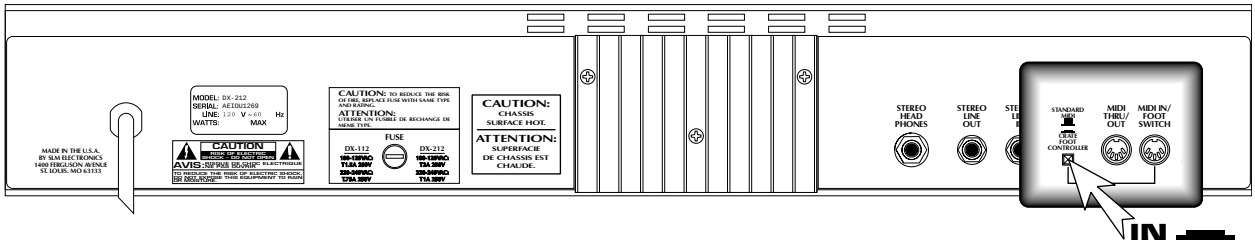
	TIP	RING	SLEEVE
1	2T, 2R	3T	2S,3S
2	1T, 2R	2T	1S,3S
3	1R	(N/A)	1S,2S

Making the Right Connections

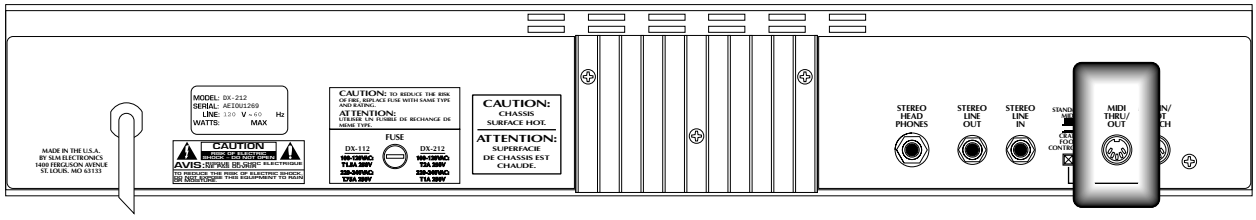
Using a MIDI Footswitch:



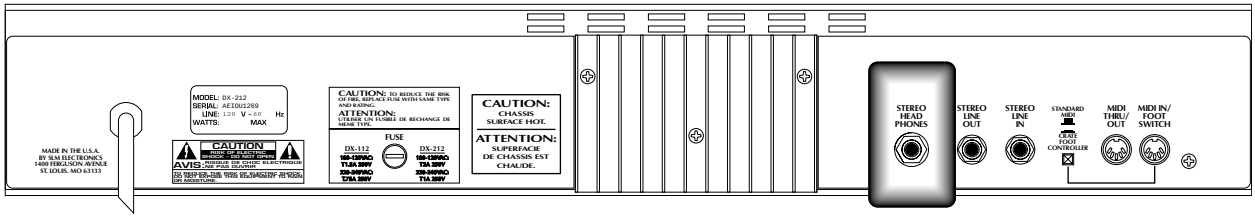
Using the Crate Foot Controller:



The MIDI Thru/Out Jack:



The Stereo Headphones Jack:



Using a MIDI Footswitch:

You can store and recall a total of 100 presets when using a MIDI footswitch. These presets are accessed by MIDI program numbers 0 through 99. (Also, see the MIDI Implementation Chart, Appendix B, page 45.)

WARNING: The MIDI In/Crate Foot Controller button must be in the OUT position for MIDI operation. (The IN position applies power to the Crate Foot Controller which could cause damage to another type of MIDI footswitch.)

Using the Crate Foot Controller:

The optional Crate Foot Controller (model DX-FC) lets you store and recall a total of 100 presets and allows foot control of the tap tempo function. The controller gets its power straight from the amplifier, so no external power source or batteries are needed!

Plug the connecting cable into the MIDI In/Foot Switch jack and set the MIDI In/Crate Foot Controller button to the IN (foot controller) position. This applies the power needed for the Crate Foot Controller.

(See the Foot Controller's User's Guide for more complete information-when you get one!)

The MIDI Thru/Out Jack:

The MIDI Out/Thru jack lets you control other MIDI devices with the Foot Controller. Connect this jack to the MIDI In jack of the device you wish to control.

The MIDI Thru works with either a standard MIDI input (footswitch) or with the Crate Foot Controller plugged into the MIDI In jack, since the Crate Foot Controller sends standard MIDI messages.

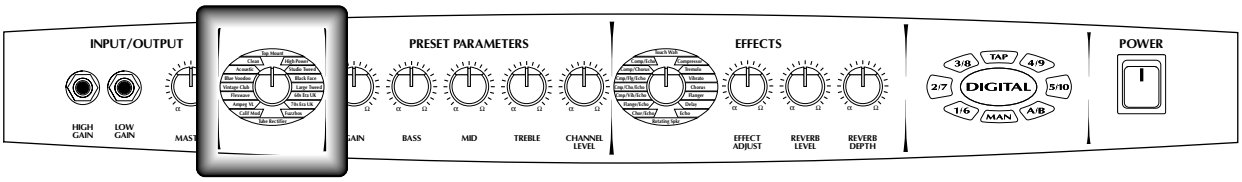
The Stereo Headphones Jack:

Plug a pair of stereo headphones into this jack, for private listening. The internal speaker(s) is (are) disconnected when headphones are used. The headphones signal is speaker compensated for a realistic sound even without a guitar speaker cabinet. Since this amp can play LOUD, be careful when using headphones – prolonged exposure to those high dB levels can wreak havoc on your eardrums!

• The Headphones Jack can also be used as a stereo direct out for recording.

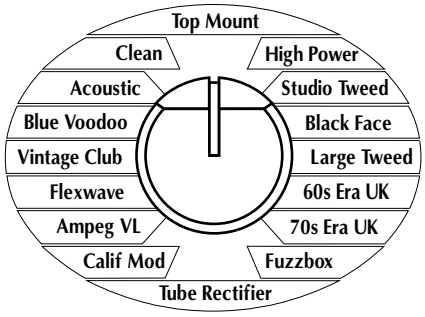
The Amp Models

Description of the Models:



The DX-112/212 is actually 16 different amplifiers in one! The software inside the amplifier convinces the signal that it's going through the electronic components of the original amplifier, giving it all of the characteristics of that amp! (More or less – it's really a lot more technical than that, but you get the picture. For a slightly more technical description, see Appendix A on page 43.)

Use the amp selector knob to choose which amp model you want. The chart on the following page lists the name we gave the amp model, the "make and model" of the amp we emulated, and a brief description of the original amp.



Model Name	Modeled After the...	Brief Description
Top Mount	Vox AC 30	Bright with a great clean sound at low gain, distorts smoothly at high gain settings – an early 60's amp with lots of 2nd and 3rd order harmonics, favored by the Beatles for the rhythm and lead tracks in their early days
High Power	Hi Watt DR	An early 60's "upmarket" alternative to the popular Marshall amp – louder and cleaner than most
Studio Tweed	Fender Deluxe 5E3	The sound from which Rock 'n' Roll was born – Fender's early 50's claim to fame
Black Face	Fender Deluxe Reverb AA763	*The* classic tube amp – one of the first amps with reverb, a mid-60's staple to the rock and roll diet (considered by some to be one of the best amps ever made)
Large Tweed	Fender Bassman 5F6-A	Originally designed for bass, favored by guitarists for its big sound – a late 50's classic
60s Era UK	Marshall 1959	The renowned "brown sound" – a softer, smoother Marshall than the more modern creations
70s Era UK	Marshall JCM 800	The sound of ROCK! – loud and powerful with a definitive edge
Fuzzbox	Dallas-Arbiter Fuzz Face	Jimi would be proud – the classic stomp box distortion of his day
Tube Rectifier	Mesa-Boogie Dual Rectifier	Barre chord Heaven – the beginning of the modern high-gain amp era
Calif Mod	Mesa-Boogie Mark IIC+	Tons of overdrive and sustain; the sound of Santana! – the hot-rodded powerhouse Simul-Class amplifier
Ampeg VL	Ampeg VL-501	A hot-rodded Marshall-style amp – powerful, lots of distortion and multiple gain stages
Flexwave	Crate GX-140C	The massively overdriven, solid state Crate sound preferred by Metal-Heads everywhere – a solid-state competitor for most classic tube amps due to Crate's proprietary FlexWave circuitry
Vintage Club	Crate VC-60	A unique combination of both modern high-gain and classic tube amps – bringing back the "vintage" sound of the early days of rock
Blue Voodoo	Crate BV-60	Awesome modern high-gain tone – smooth, clean, and powerful
Acoustic	Boss AC-1 Acoustic Simulator	Makes your electric guitar sound like an acoustic
Clean	Crate GX-140C	Clean Jazz sound – just enough of a an edge to get your message across

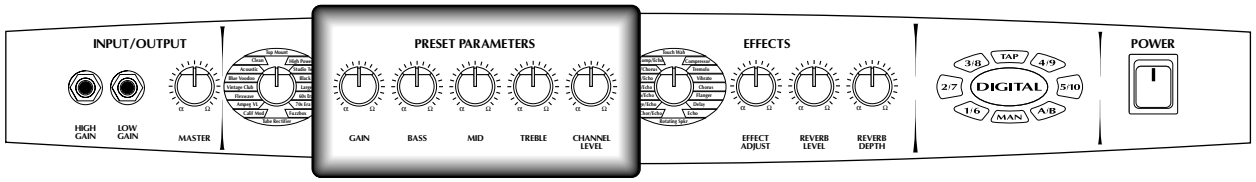
All-important, legal, "cover-our-rear-ends" blurb!

Vox, Hi Watt, Fender, Marshall, Dallas-Arbiter, Mesa-Boogie, Boss, and the names of their respective products are all trademarks of their respective companies, and have no affiliation with Crate and/or SLM Electronics, or with the DX-112/212 amplifier. These companies and their products are acknowledged herein because we listened to their stuff and modeled some of their sounds into our amplifier.

Also, the above descriptions are paraphrased synopses of many of our own experiences with the amplifiers, along with information from the "The Tube Amp Book, 4th Edition."

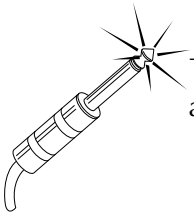
The Amp Models

Equalization and Channel Level:

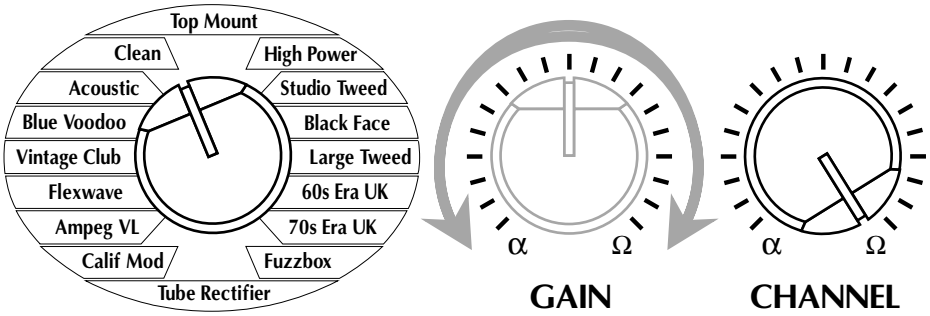


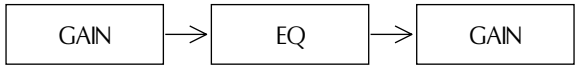
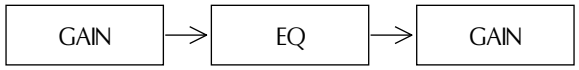
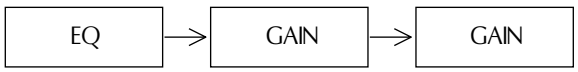
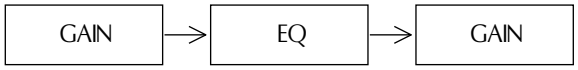
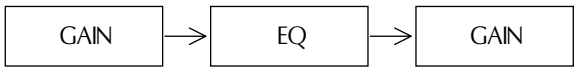
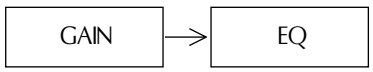
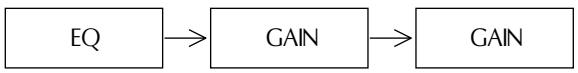
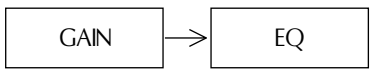
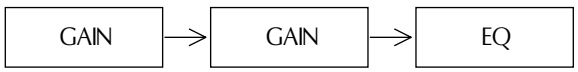
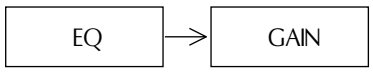
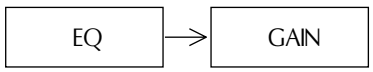
Each DX-112/212 amp model has its own specifications and placement in the signal chain for its Gain, Bass, Mid, and Treble. (In other words, the controls affect the signal the same in the amp model as they do on the original amplifier.)

Use the Preset Parameter controls (Gain, Bass, Mid, Treble, Channel Level) to change the gain, eq and volume of the selected amp model. The chart on the following page lists the model name and the specifications/placement for the Drive and EQ controls.



TIP! When using the Acoustic or Clean amp models, set the Channel Level to maximum and use the Gain control for your volume level.



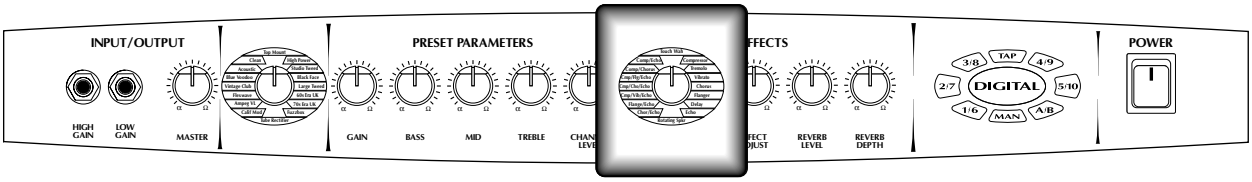
Name	Amplifier Modeled	Simplified Representation of EQ Position in Signal Chain
Top Mount	Vox AC 30	
High Power	Hi Watt DR	
Studio Tweed	Fender Deluxe 5E3	
Black Face	Fender Deluxe Reverb AA763	
Large Tweed	Fender Bassman 5F6-A	
60s Era UK	Marshall 1959	
70s ERA UK	Marshall JCM 800	
Fuzzbox	Dallas-Arbiter Fuzz Face	
Tube Rectifier	Mesa-Boogie Dual Rectifier	
Calif Mod	Mesa-Boogie Mark IIC+	
Ampeg VL	Ampeg VL-501	
Flexwave	Crate GX-140C	
Vintage Club	Crate VC-60	
Blue Voodoo	Crate BV-60	
Acoustic	Boss AC-1 Acoustic Simulator	
Clean	Crate GX-140C	

All-important, legal, "cover-our-rear-ends" blurb! Again!

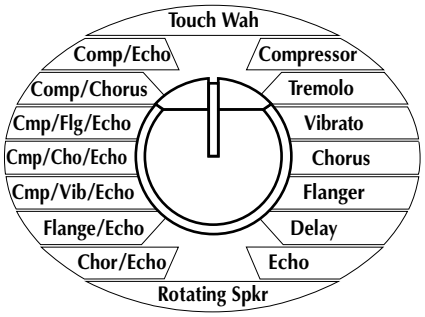
Vox, Hi Watt, Fender, Marshall, Dallas-Arbiter, Mesa-Boogie, Boss, and the names of their respective products are all trademarks of their respective companies, and have no affiliation with Crate and/or SLM Electronics, or with the DX-112/212 amplifier. These companies and their products are acknowledged herein because we listened to their stuff and modeled some of their sounds into our amplifier.

The Digital Effects

Description of the Effects:



The DX-112/212 has 16 built-in digital effects, each with one or more adjustable parameters. The chart on the following page lists the name of the effect and gives a brief description.



NOTE: The DX-112/212 has built-in noise reduction to ensure a more quiet operation. This circuit is always active when the amp is on.

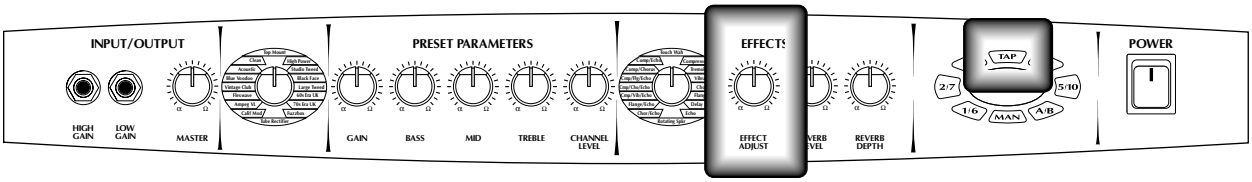
Effect	Stereo?	Description
Touch Wah		Functions as an Auto-Wah (Touch Wah) or normal wah-wah when used with an expression pedal and the optional Crate Foot Controller
Compressor		Limits the dynamic range of the signal – increases the apparent sustain of the signal (applied pre-amplifier model)
Tremolo		Modulates the amplitude of the signal
Vibrato		Modulates the pitch of the signal
Chorus	Yes	Thickens the original signal with slowly pitch-modulated and delayed versions of the original signal
Flanger		Adds a slowly time-varying version of the original signal
Delay		Adds a delayed version of the signal
Echo		Adds a delayed signal with regeneration
Rotating Speaker	Yes	Reproduces the classic sound of a Leslie rotating speaker
Chorus/Echo	Yes	A combination of chorus and echo
Flange/Echo		A combination of flange and echo
Compressor/Vibrato/Echo		A combination of compressor (pre-amplifier model) and vibrato and echo (post-amplifier model)
Compressor/Chorus/Echo	Yes	A combination of compressor (pre-amplifier model) and chorus and echo (post-amplifier model)
Compressor/Flange/Echo		A combination of compressor (pre-amplifier model) and flange and echo (post-amplifier model)
Compressor/Chorus	Yes	A combination of compressor (pre-amplifier model) and chorus (post-amplifier model)
Compressor/Echo		A combination of compressor (pre-amplifier model) and echo (post-amplifier model)
Reverb Level and Depth (separate from the Effects Selector knob)	Yes	Reproduces the sound of a reverberant room

Yet another important legal blurb!

Leslie is a registered trademark of Hammond Suzuki USA, Inc.

The Digital Effects

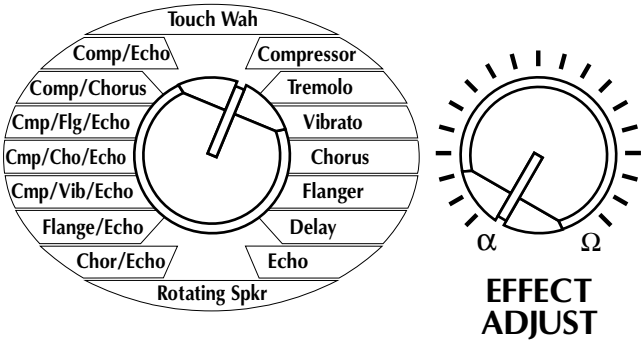
Effects Selection and Adjustment:



Each of the digital effects has one or more parameters you can change by using the Effects Adjust control. All of the effects (except the compressor and the Touch Wah) can also be changed by using the Tap function – either through the Keypad, or with the Crate Foot Controller. The chart on the following page lists the effects along with the parameter(s) affected by the Effects Adjust knob and the Tap button.

NOTE: On multi-effects, modulation speed and echo time are set simultaneously by the Tap button.

- To bypass effects, turn the Effect Adjust control fully counter-clockwise and select the Compressor effect. (Notice the chart on page 18: There is no compression with the Effect Adjust knob full counter-clockwise, therefore no effects are applied to the signal – thus, "effects bypass.")



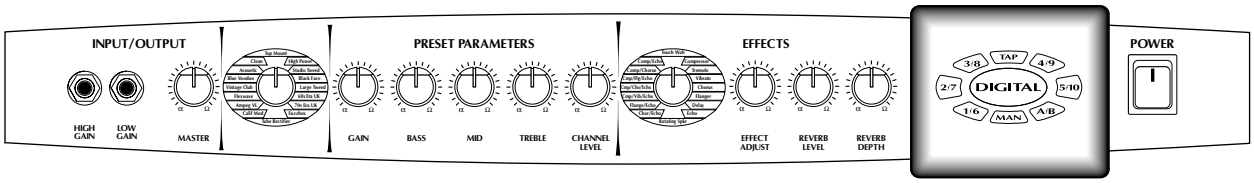
Effect	Effect Adjust knob controls:	Tap button controls:	See Note(s)
Touch Wah	Sensitivity (Auto-Wah only)	——	
Compressor	Ratio (See Below*****)	——	
Tremolo	Depth of Amplitude Modulation	Speed: 2 cycles/tap	
Vibrato	Depth of Pitch Modulation	Speed: 2 cycles/tap	
Chorus	Level of Chorused Signal	Speed: 1 cycles/tap	
Flanger	Max. Time Delay: 0–5ms	Speed: 1/4 cycle/tap	1
Delay	Level of Delayed Signal	Time: .033–1.12 sec	2
Echo	Regeneration	Time: .033–1.12 sec	2
Rotating Speaker	Depth of Amplitude/Pitch Mod'n	Speed: 2 cycles/tap	
Chorus/Echo	Chorus Level, Echo Regeneration	Chorus Speed: 1 cycle/tap, Echo Time: .033-1.12 sec	2
Flange/Echo	Echo Regeneration	Flange Speed: 1/4 cycle/tap, Echo Time: .033-1.12 sec	1,2
Compressor/Vibrato/Echo	Vibrato Depth, Echo Regeneration	Vibrato Speed: 2 cycles/tap, Echo Time: .033-1.12 sec	2,3
Compressor/Chorus/Echo	Chorus Level, Echo Regeneration	Chorus Speed: 1 cycle/tap, Echo Time: .033-1.12 sec	2,3
Compressor/Flange/Echo	Echo Regeneration	Flange Speed: 1/4 cycle/tap, Echo Time: .033-1.12 sec	1,2,3
Compressor/Chorus	Chorus Level	Chorus Speed: 1 cycle/tap	2,3
Compressor/Echo	Echo Regeneration	Echo Time: .033-1.12 sec	2,3

Note 1: Mix fixed at 50%
Note 2: Tap periods exceeding 1.12 seconds are automatically adjusted to an allowable echo/delay time that fits the current tempo
Note 3: Compression ratio fixed at 10:1

***** The table to the right shows how the Effect Adjust control changes the compression ratio when the Compressor ONLY is chosen.

approx rotation of Effect Adjust control (%)	compression ratio
0	1:1 (no compression)
30	2:1
40	3:1
50	4:1
60	6:1
70	10:1
80	20:1
90	100:1
100	∞:1

The Keypad



The DX-112/212's Keypad has many uses – aside from recalling presets (as mentioned in the QuickStart part of this guide):

Recalling the Presets:

There are ten presets accessible from the keypad, in two banks of five per bank: with the A/B button off (not lit), the numbered buttons to recall presets 1–5 (bank A); with the A/B button lit, the buttons recall presets 6–10 (bank B). Each preset stores its own set of parameters (amp selection, tones, level, effect, etc.). Once a preset is selected, turning a knob will change that knob's setting only – the other settings will electronically remain at their virtual positions until you change them.

"What's a virtual position?" (Good Question!) It's the setting that the amp remembers for each knob when a preset is stored. Example: Let's say the Gain control was at 10:00 when preset 1 was saved, then changed to the 3:00 position. The actual setting for the knob is 3:00. Recall preset 1 and even though the knob is physically pointing to 3:00, the amp acts as if the knob were set to the 10:00 position – because that's the virtual position for that knob in preset 1. (Got it?)

Saving New Presets:

Once you get a sound setting you want to keep, assigning it to a preset button is easy: press and hold the desired button (1–5, bank A; 6–10, bank B) until the keypad flashes (about 3 seconds). The settings are now stored at that preset location.

(NOTE: The charts on pages 23 through 42 give you a place to record the settings for your presets. Presets 1–10 are accessible through the keypad, presets 11–100 are accessible by use of the optional Crate Footswitch Controller)

The Tap Button:

The Tap button lets you match the delay time and modulation speeds of the effects (except for the compressor, which has no delay or modulation) to the tempo of the piece you're playing. Just tap your finger in time to the beat, on the Tap button of course, and the selected effect will change accordingly. The Tap button flashes in time with its tempo.

(NOTE: The chart on page 18 lists specifically what the Tap button controls for each effect setting.)

The Manual ("MAN") Button:

When you call up a preset, the preset remembers how the controls were set when the preset was stored (their virtual positions), and basically ignores their current settings. Pressing the Manual button makes the amp pay attention to the actual positions of the controls and applies their settings to the sound.

Another function of the Manual button:

- **Restoring Factory Default Presets:** To restore the presets to their original factory settings, press and hold the Manual button and button #5 until the keypad flashes (about 3 seconds). Then turn the amp off, wait five seconds, and turn it back on. The presets are now restored to the original factory settings.

WARNING! Restoring the factory presets wipes out any and all changes you've made and any new presets you've stored, so use it carefully.

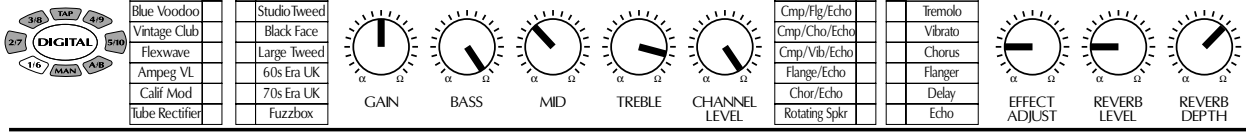
Other things you should know about the lit buttons:

- As soon as you change any of the controls (except for the Master volume), the preset button starts flashing. That's its way of saying "Hey! You've changed me!" A tap on the flashing button returns the preset to its original parameters – and makes the button stop flashing. Of course, you can save the changes, as described under "Saving New Presets" on the facing page.
- When you change banks, the preset button will go out as soon as you press the A/B button, but no other changes are made until another numbered button is pressed. In other words, although there is a *visual* change, the amp won't store the preset or switch to a different one (depending on how long you press the numbered button) until you want it to.

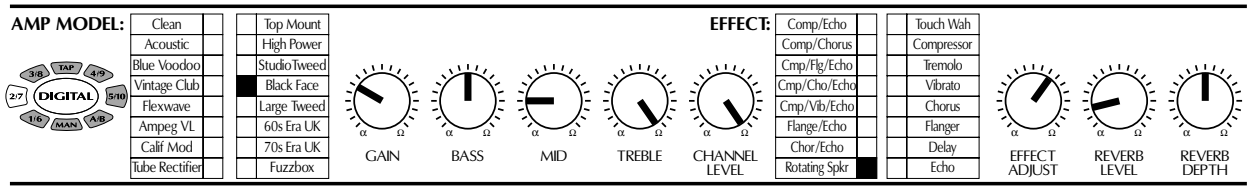
FACTORY PRESETS 1–5 - BANK A (A/B BUTTON NOT LIT)

These two pages show the first ten factory presets for your DX-112/212 amplifier. Use the numbered buttons and the A/B button on the keypad to access them. (The following pages provide you with charts for your favorite presets.)

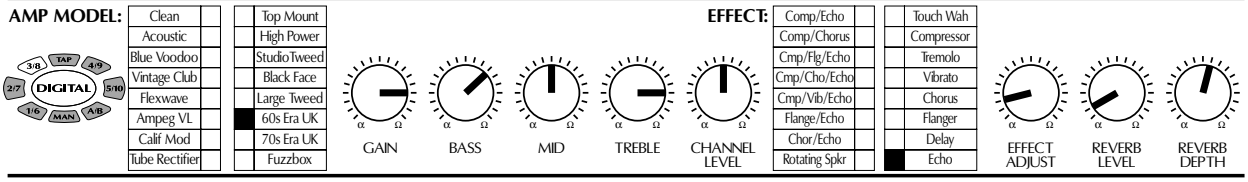
Preset # 1 **We call it:** *"Unplugged"* **TAP =** *N/A* **beats/minute**



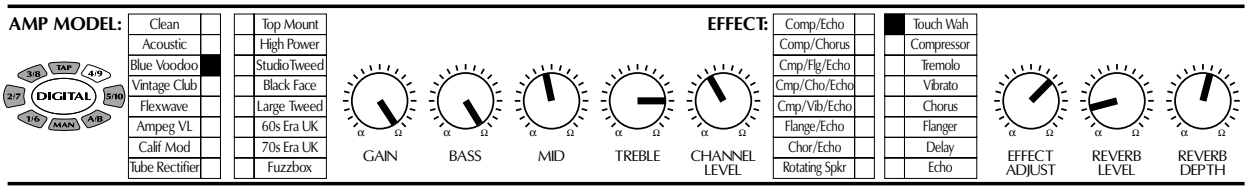
Preset # 2 **We call it:** *"60's Rock"* **TAP =** *102* **beats/minute**



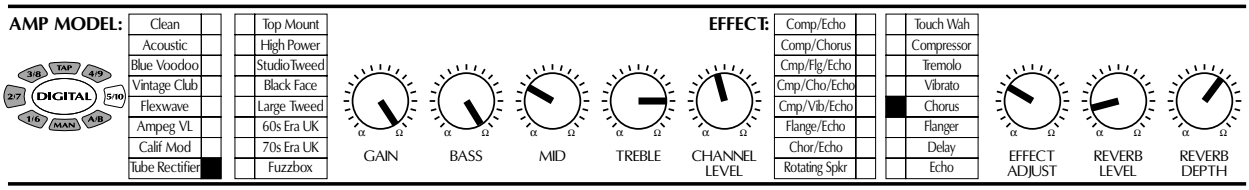
Preset # 3 **We call it:** *"Live at Leeds"* **TAP =** *114* **beats/minute**



Preset # 4 **We call it:** *"Voodoo Child"* **TAP =** *N/A* **beats/minute**

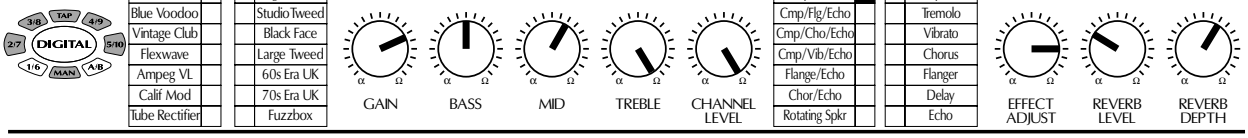


Preset # 5 **We call it:** *"Arena Rock"* **TAP =** *62* **beats/minute**

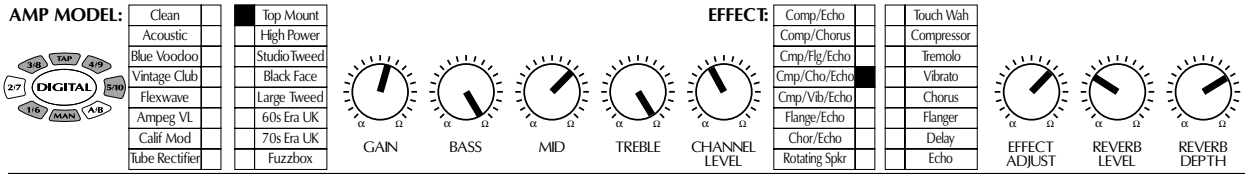


FACTORY PRESETS 6–10 - BANK B (A/B BUTTON LIT)

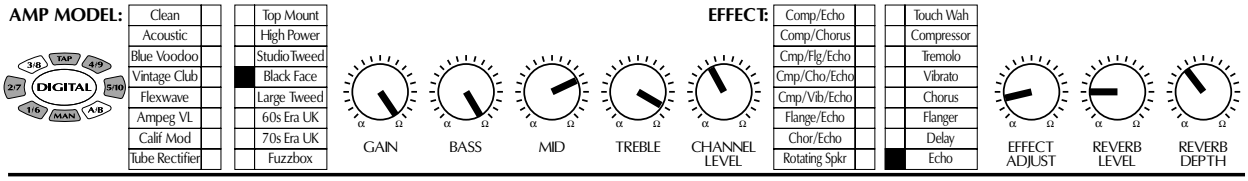
Preset # 6 **We call it:** *"Jazzy Chorus"* **TAP =** 61 **beats/minute**



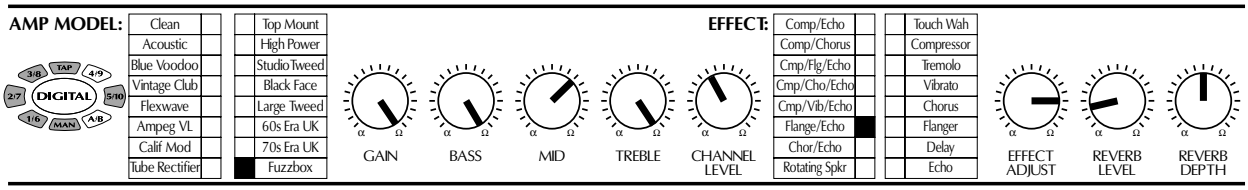
Preset # 7 **We call it:** *"British Invasion"* **TAP =** 162 **beats/minute**



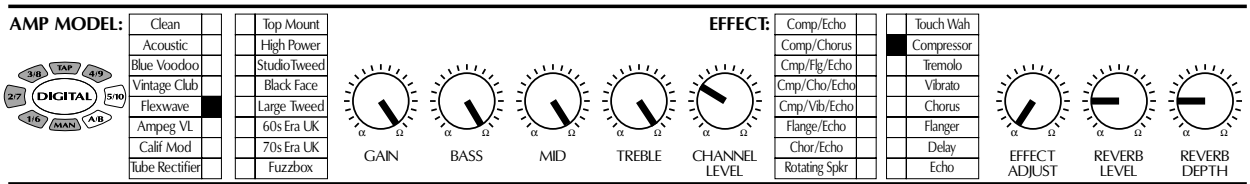
Preset # 8 **We call it:** *"Smoky Bar Blues"* **TAP =** 275 **beats/minute**



Preset # 9 **We call it:** *"Space Rock"* **TAP =** 44 **beats/minute**



Preset # 10 **We call it:** *"Full Metal Jacket" (Crank it!!)* **TAP =** N/A **beats/minute**



USER PRESETS 1– 5 - BANK A

Playing Favorites: Use the blank charts in this section to record the knob settings of your favorite presets. (We suggest using a pencil so you can go back and make changes later. You could also photocopy one of the pages while it's still blank.)

Preset # 1 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**	
Clean	Top Mount	Comp/Echo	Touch Wah	
Acoustic	High Power	Comp/Chorus	Compressor	
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face	Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed	Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK	Flange/Echo	Flanger	
Calif Mod	70s Era UK	Chor/Echo	Delay	
Tube Rectifier	Fuzzbox	Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 2 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**	
Clean	Top Mount	Comp/Echo	Touch Wah	
Acoustic	High Power	Comp/Chorus	Compressor	
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face	Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed	Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK	Flange/Echo	Flanger	
Calif Mod	70s Era UK	Chor/Echo	Delay	
Tube Rectifier	Fuzzbox	Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 3 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**	
Clean	Top Mount	Comp/Echo	Touch Wah	
Acoustic	High Power	Comp/Chorus	Compressor	
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face	Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed	Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK	Flange/Echo	Flanger	
Calif Mod	70s Era UK	Chor/Echo	Delay	
Tube Rectifier	Fuzzbox	Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 4 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**	
Clean	Top Mount	Comp/Echo	Touch Wah	
Acoustic	High Power	Comp/Chorus	Compressor	
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face	Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed	Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK	Flange/Echo	Flanger	
Calif Mod	70s Era UK	Chor/Echo	Delay	
Tube Rectifier	Fuzzbox	Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 5 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**	
Clean	Top Mount	Comp/Echo	Touch Wah	
Acoustic	High Power	Comp/Chorus	Compressor	
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face	Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed	Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK	Flange/Echo	Flanger	
Calif Mod	70s Era UK	Chor/Echo	Delay	
Tube Rectifier	Fuzzbox	Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

DX-112/212 Digital Guitar Amplifier

USER PRESETS 6–10 - BANK B

Preset # 6 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 7 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 8 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 9 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 10 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

CRATE DX-112/212 Digital Guitar Amplifier

USER PRESETS 11–16 - BANK A

NOTE: Presets 11–100 are only accessable through the optional Crate Foot Controller

Preset # 11 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 12 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 13 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 14 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 15 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

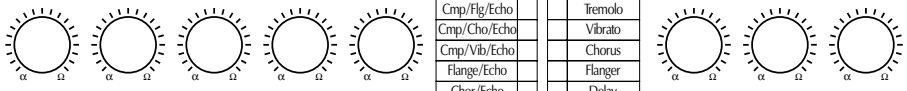
DX-112/212 Digital Guitar Amplifier

USER PRESETS 16–20 - BANK B

Preset # 16 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		Studio Tweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



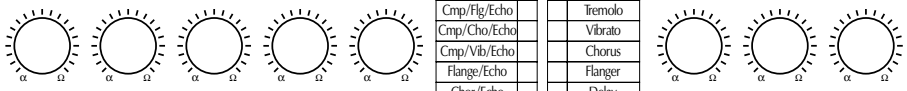
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 17 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		Studio Tweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



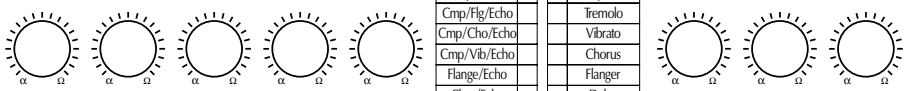
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 18 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		Studio Tweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



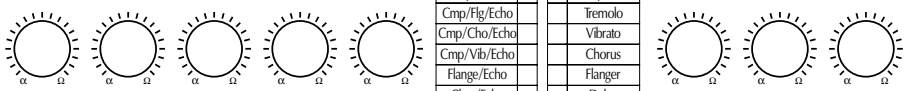
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 19 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		Studio Tweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



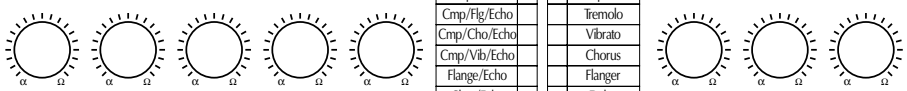
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 20 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		Studio Tweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

USER PRESETS 21–25 - BANK A

Preset # 21 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 22 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 23 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 24 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 25 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

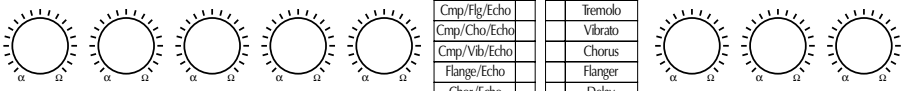
GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 26–30 - BANK B

Preset # 26 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



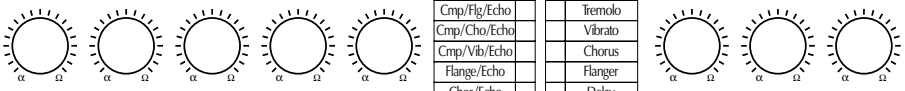
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 27 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



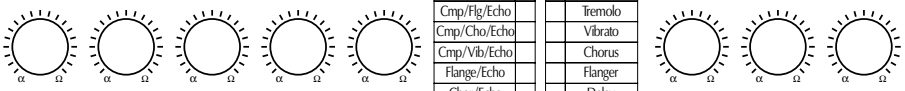
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 28 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



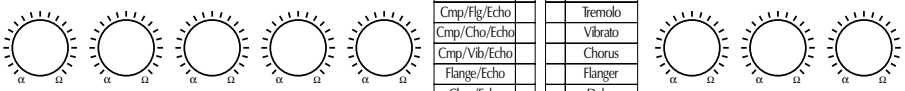
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 29 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



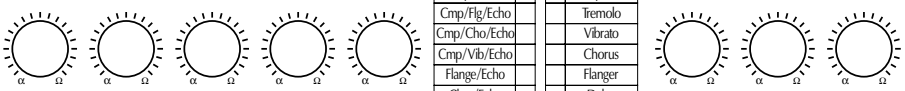
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 30 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	

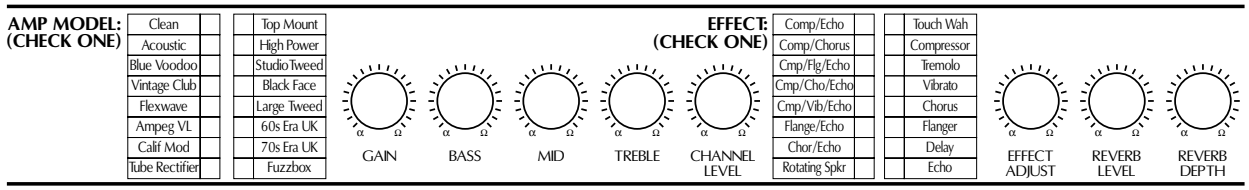


EFFECT: (CHECK ONE)

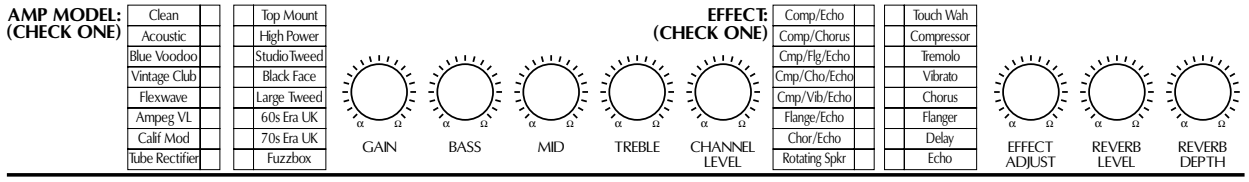
Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

USER PRESETS 31–35 - BANK A

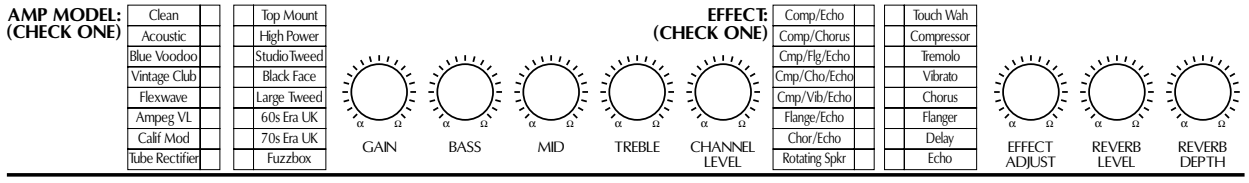
Preset # 31 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**



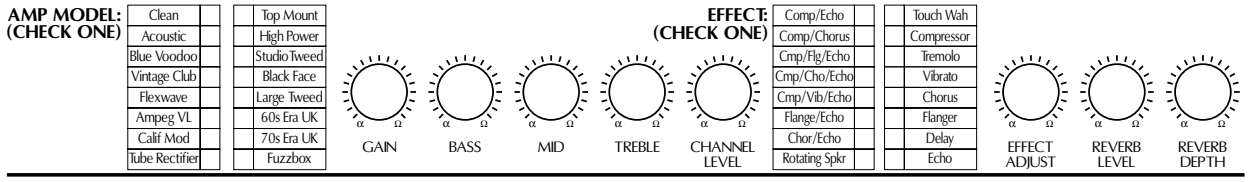
Preset # 32 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**



Preset # 33 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

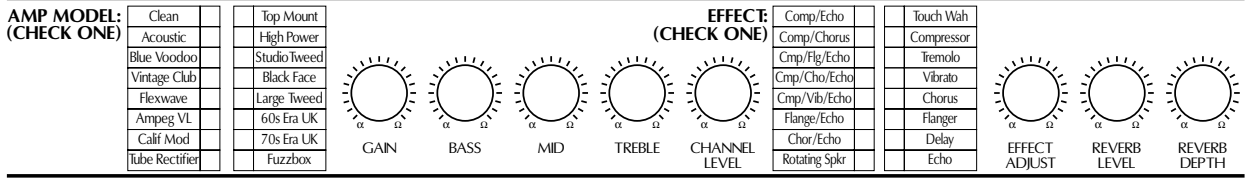


Preset # 34 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**



FAVORITES

Preset # 35 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**



USER PRESETS 36–40 - BANK B

Preset # 36 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		StudioTweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah	
Comp/Chorus		Compressor	
Cmp/Flg/Echo		Tremolo	
Cmp/Cho/Echo		Vibrato	
Cmp/Vib/Echo		Chorus	
Flange/Echo		Flanger	
Chor/Echo		Delay	
Rotating Spkr		Echo	

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 37 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		StudioTweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah	
Comp/Chorus		Compressor	
Cmp/Flg/Echo		Tremolo	
Cmp/Cho/Echo		Vibrato	
Cmp/Vib/Echo		Chorus	
Flange/Echo		Flanger	
Chor/Echo		Delay	
Rotating Spkr		Echo	

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 38 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		StudioTweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah	
Comp/Chorus		Compressor	
Cmp/Flg/Echo		Tremolo	
Cmp/Cho/Echo		Vibrato	
Cmp/Vib/Echo		Chorus	
Flange/Echo		Flanger	
Chor/Echo		Delay	
Rotating Spkr		Echo	

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 39 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		StudioTweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah	
Comp/Chorus		Compressor	
Cmp/Flg/Echo		Tremolo	
Cmp/Cho/Echo		Vibrato	
Cmp/Vib/Echo		Chorus	
Flange/Echo		Flanger	
Chor/Echo		Delay	
Rotating Spkr		Echo	

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 40 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		StudioTweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah	
Comp/Chorus		Compressor	
Cmp/Flg/Echo		Tremolo	
Cmp/Cho/Echo		Vibrato	
Cmp/Vib/Echo		Chorus	
Flange/Echo		Flanger	
Chor/Echo		Delay	
Rotating Spkr		Echo	

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 41–45 - BANK A

Preset # 41 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**		
Clean	Top Mount		Comp/Echo	Touch Wah	
Acoustic	High Power		Comp/Chorus	Compressor	
Blue Voodoo	StudioTweed		Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face		Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed		Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK		Flange/Echo	Flanger	
Calif Mod	70s Era UK		Chor/Echo	Delay	
Tube Rectifier	Fuzzbox		Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 42 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**		
Clean	Top Mount		Comp/Echo	Touch Wah	
Acoustic	High Power		Comp/Chorus	Compressor	
Blue Voodoo	StudioTweed		Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face		Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed		Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK		Flange/Echo	Flanger	
Calif Mod	70s Era UK		Chor/Echo	Delay	
Tube Rectifier	Fuzzbox		Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 43 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**		
Clean	Top Mount		Comp/Echo	Touch Wah	
Acoustic	High Power		Comp/Chorus	Compressor	
Blue Voodoo	StudioTweed		Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face		Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed		Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK		Flange/Echo	Flanger	
Calif Mod	70s Era UK		Chor/Echo	Delay	
Tube Rectifier	Fuzzbox		Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 44 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**		
Clean	Top Mount		Comp/Echo	Touch Wah	
Acoustic	High Power		Comp/Chorus	Compressor	
Blue Voodoo	StudioTweed		Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face		Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed		Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK		Flange/Echo	Flanger	
Calif Mod	70s Era UK		Chor/Echo	Delay	
Tube Rectifier	Fuzzbox		Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 45 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)			**EFFECT: (CHECK ONE)**		
Clean	Top Mount		Comp/Echo	Touch Wah	
Acoustic	High Power		Comp/Chorus	Compressor	
Blue Voodoo	StudioTweed		Cmp/Flg/Echo	Tremolo	
Vintage Club	Black Face		Cmp/Cho/Echo	Vibrato	
Flexwave	Large Tweed		Cmp/Vib/Echo	Chorus	
Ampeg VL	60s Era UK		Flange/Echo	Flanger	
Calif Mod	70s Era UK		Chor/Echo	Delay	
Tube Rectifier	Fuzzbox		Rotating Spkr	Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 46–50 - BANK B

Preset # 46 *I think I'll call it:*_____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 47 *I think I'll call it:*_____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 48 *I think I'll call it:*_____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 49 *I think I'll call it:*_____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 50 *I think I'll call it:*_____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

CRATE DX-112/212 Digital Guitar Amplifier

USER PRESETS 51–55 - BANK A

Preset # 51 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 52 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 53 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 54 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 55 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 56–60 - BANK B

Preset # 56 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 57 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 58 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 59 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 60 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah		
Compressor		
Tremolo		
Vibrato		
Chorus		
Flanger		
Delay		
Echo		

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

CRATE DX-112/212 Digital Guitar Amplifier

USER PRESETS 61–65 - BANK A

Preset # 61 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 62 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 63 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 64 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 65 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox

GAIN BASS MID TREBLE CHANNEL LEVEL

EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

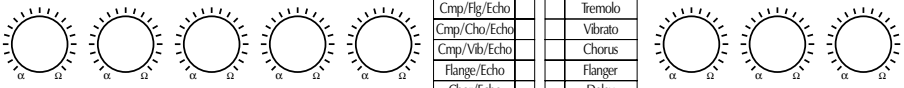
EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 66–70 - BANK B

Preset # 66 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



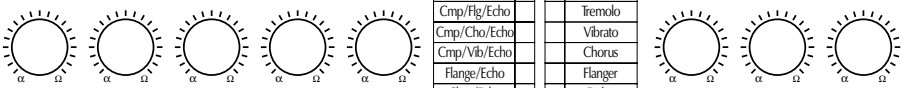
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 67 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



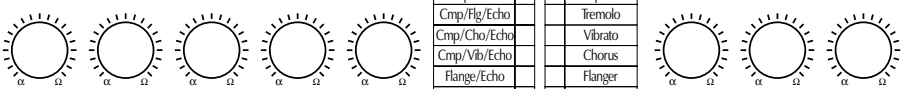
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 68 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



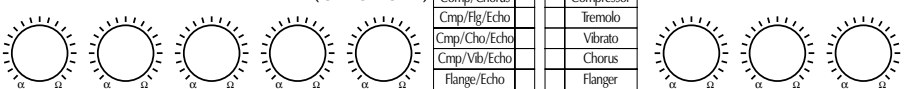
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 69 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



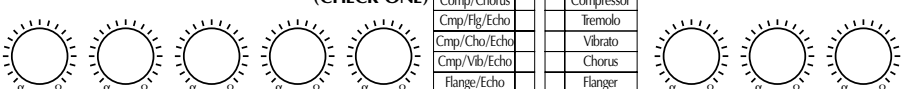
EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

Preset # 70 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount
Acoustic		High Power
Blue Voodoo		StudioTweed
Vintage Club		Black Face
Flexwave		Large Tweed
Ampeg VL		60s Era UK
Calif Mod		70s Era UK
Tube Rectifier		Fuzzbox



EFFECT: (CHECK ONE)

Comp/Echo	Touch Wah
Comp/Chorus	Compressor
Cmp/Flg/Echo	Tremolo
Cmp/Cho/Echo	Vibrato
Cmp/Vib/Echo	Chorus
Flange/Echo	Flanger
Chor/Echo	Delay
Rotating Spkr	Echo

CRATE DX-112/212 Digital Guitar Amplifier

USER PRESETS 71–75 - BANK A

Preset # 71 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah
Compressor
Tremolo
Vibrato
Chorus
Flanger
Delay
Echo

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 72 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah
Compressor
Tremolo
Vibrato
Chorus
Flanger
Delay
Echo

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 73 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah
Compressor
Tremolo
Vibrato
Chorus
Flanger
Delay
Echo

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 74 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah
Compressor
Tremolo
Vibrato
Chorus
Flanger
Delay
Echo

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 75 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	Studio Tweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah
Compressor
Tremolo
Vibrato
Chorus
Flanger
Delay
Echo

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 76–80 - BANK B

Preset # 76 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 77 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 78 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 79 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 80 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

USER PRESETS 81–85 - BANK A

Preset # 81 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 82 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 83 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 84 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 85 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

DX-112/212 Digital Guitar Amplifier

USER PRESETS 86–90 - BANK B

Preset # 86 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

| | | |

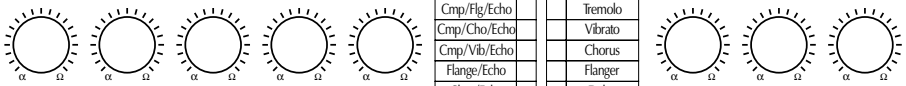
CRATE DX-112/212 Digital Guitar Amplifier

USER PRESETS 91–95 - BANK A

Preset # 91 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



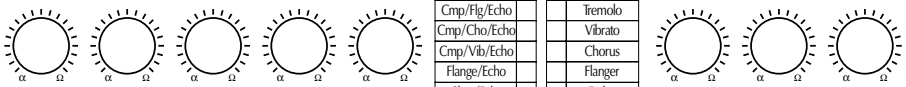
EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

Preset # 92 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



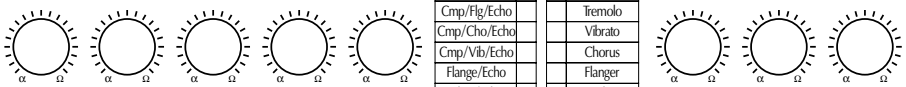
EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

Preset # 93 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



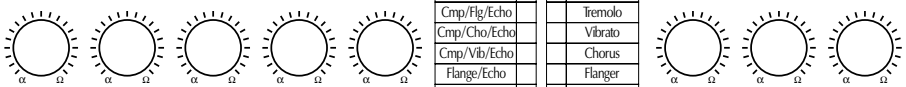
EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

Preset # 94 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



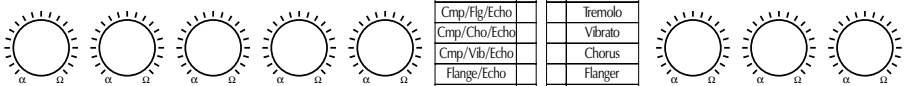
EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

Preset # 95 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean		Top Mount	
Acoustic		High Power	
Blue Voodoo		Studio Tweed	
Vintage Club		Black Face	
Flexwave		Large Tweed	
Ampeg VL		60s Era UK	
Calif Mod		70s Era UK	
Tube Rectifier		Fuzzbox	



EFFECT: (CHECK ONE)

Comp/Echo		Touch Wah
Comp/Chorus		Compressor
Cmp/Flg/Echo		Tremolo
Cmp/Cho/Echo		Vibrato
Cmp/Vib/Echo		Chorus
Flange/Echo		Flanger
Chor/Echo		Delay
Rotating Spkr		Echo

USER PRESETS 96–100 - BANK B

Preset # 96 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 97 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 98 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Preset # 99 ***I think I'll call it:*** _____ **Set TAP for** _____ **beats/minute**

AMP MODEL: (CHECK ONE)

Clean	Top Mount	Comp/Echo
Acoustic	High Power	Comp/Chorus
Blue Voodoo	StudioTweed	Cmp/Flg/Echo
Vintage Club	Black Face	Cmp/Cho/Echo
Flexwave	Large Tweed	Cmp/Vib/Echo
Ampeg VL	60s Era UK	Flange/Echo
Calif Mod	70s Era UK	Chor/Echo
Tube Rectifier	Fuzzbox	Rotating Spkr

EFFECT: (CHECK ONE)

Touch Wah	
Compressor	
Tremolo	
Vibrato	
Chorus	
Flanger	
Delay	
Echo	

GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

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GAIN BASS MID TREBLE CHANNEL LEVEL EFFECT ADJUST REVERB LEVEL REVERB DEPTH

Appendix A

Designer's Note: Amplifier Modeling:

Building an amplifier model is really not much different than building an actual amplifier. With an actual amplifier you start with components like tubes, transformers, resistors, capacitors, and a speaker, and put them together to create an amplifier. With a virtual amplifier you start with virtual components and put them together to create an amplifier model.

It all starts with what many consider to be the "magic" in the sound of many vintage amplifiers: the vacuum tube. We created a tube model flexible enough to emulate different types of vacuum tubes, from preamp tubes such as the 12AX7 to power amp tubes like the 6L6 and the EL84.

Next, we constructed models to duplicate the filtering and equalization that takes place between the gain stages of an amplifier. These equalization models are adaptable to precisely emulate the frequency characteristics of a specific amplifier's controls. We even created models for the output transformer and power supply sag characteristics.

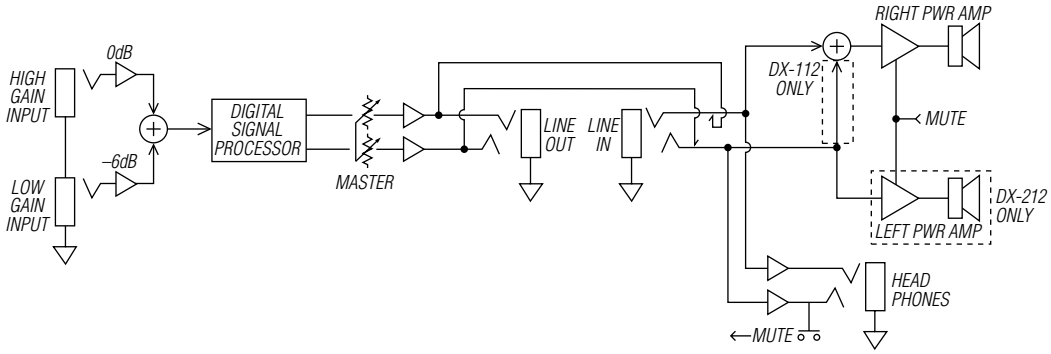
After extensive research, we discovered that there's really no magic in the tube itself. Much of the tube amplifier sound is a result of not just the tube, but the way the tube interacts with the other components in the amplifier. We created our tube models to interact with the other components in our virtual amplifiers, just like the real thing.

After we developed our component models, we put them together to create our virtual amplifiers. We sound tested our amplifier models extensively to ensure that they remained true to the sound and feel of the original amplifier. Although we may have taken the magic out of the tube, we wanted to keep the magic of the tube *sound*.

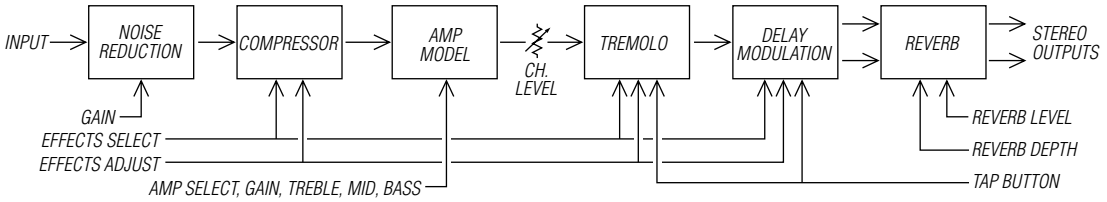
The diagrams on the following page show the signal chain of the DX-112/212 amplifier.

Block Diagrams:

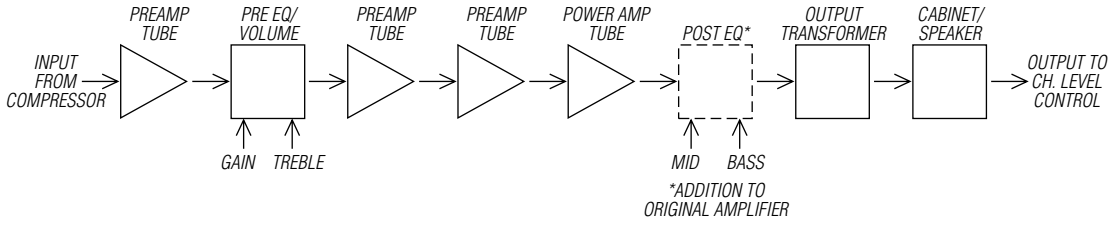
- The analog signal path, from the input jack to the speaker(s).



- The digital signal path, which is the path the signal takes inside the digital signal processor.



- A typical Amplifier Model. This simplified block diagram shows the digital signal path through the many virtual components of the Studio Tweed Amplifier Model. Note that the Fender Deluxe did not have a Mid or Bass control, so we added these controls post-gain.



Appendix B

MIDI Implementation Chart:

[Crate Digital Guitar Amplifier] **Date: 02/18/99**
MODEL DX-112/212 **Version: 1.1**

Function		Transmitted	Recognized	Remarks
Basic	Default	X	OMNI	
Channel	Changed	X	X	
Mode	Default	X	Mode 1	
	Messages	X	X	
	Altered	X	X	
Note		X	X	
Number	True Voice	X	X	
Velocity	Note ON	X	X	
	Note OFF	X	X	
After	Key's	X	X	
Touch	Ch's	X	X	
Pitch Bender	Default	X	X	
Control		X	X	
Change		X	X	
Prog		X	O	0 – 99
Change	True Number	X	X	
System Exclusive		X	X	
System	Song Pos	X	X	
Common	Song Sel	X	X	
	Tune	X	X	
System	Clock	X	X	
Real Time	Commands	X	X	
Aux	Local ON/OFF	X	X	
Messages	All Notes Off	X	X	
	Active Sense	X	X	
	Reset	X	X	
Notes				

Mode 1: OMNI ON, POLY **Mode 2: OMNI ON, MONO** **O: YES**
Mode 3: OMNI OFF, POLY **Mode 4: OMNI OFF, MONO** **X: NO**

Appendix C

Specifications:

Analog:

Output Power Rating	DX-112 60 watts RMS; DX-212 100 watts RMS (50W RMS x 2)
Input Impedance	High gain 80k ohm; Low gain 150k ohm
Line Input Impedance	47k ohm
Line Output Impedance	1k ohm
Headphone Impedance	32 ohm minimum
Internal Speaker(s)	DX-112 (1) 12" Custom Eminence, 8 ohms; DX-212 (2) 12" Custom Eminence, 8 ohms
Power Requirements	120VAC, 60Hz, 200VA; 100/115VAC, 50/60Hz, 200VA; 230VAC, 50/60Hz, 200VA
Size and Weight	DX-112/212 21.4"H x 27.9"W x 10.2"D; DX-112 50 lbs; DX-212 57 lbs

Digital:

Analog to Digital Conversion	20-bit Delta-Sigma w/64X oversampling
Digital to Analog Conversion	20-bit Delta-Sigma w/128X oversampling
Conversion Rate	46.875 kHz
Digital Signal Processor	24-bit operating at >40 million instructions/second

Final Note:

No oversampling was used in our emulation software, and no animals were harmed during its design and development.

CRATE

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47-825-02
07/01